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TO: Rebecca McCoun and John Audley  
FROM: Sarah Reich and Kristin Lee  
SUBJECT: NORTH SANTIAM BASIN ECONOMIC ANALYSIS  
PHASE 2 SCOPE OF WORK

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## Introduction

This project is a collaboration between the North Santiam Watershed Council (the Council) and the Oregon Business Council (OBC). It is intended to support the planning functions of the Council by providing information critical for strategic decisions about investments to improve the economic and ecological vitality of the North Santiam basin. OBC's interest in this project stems from its Rural Economic Vitality (REV) Project, which seeks to better connect priorities of business leaders in rural Oregon with OBC's efforts to develop a more inclusive statewide Business Plan and Leadership Summit. Increasing investments in rural water infrastructure is one of the highest priorities of the REV project.

The overall objective of this project is to provide economic information to inform water-related policy and investment decisions in the North Santiam basin. This objective is somewhat broader than the initial objective described in the Phase 1 scope of work, which focused on evaluating the economic benefits of specific projects. Through our work so far, we have learned that there are no projects developed enough for such a targeted analysis. Rather, we understand that a basin-wide analysis will help lay the groundwork for moving forward projects throughout the basin. The intended audience for this analysis and related report are the Council and its membership and stakeholders, who intend to use the information to support collaborative planning and decision-making processes. Among these stakeholders are state and federal decision makers who are currently engaged in planning future management actions that will affect infrastructure and resources in the basin, as well as interest groups and foundations that support investments in rural water infrastructure projects more generally.

ECONorthwest has completed Phase One of the two-phase scope of work for the economic analysis of water in the North Santiam basin. Work in Phase One focused on background research and conversations with local stakeholders. We collected and reviewed background information on water conditions, the major water stakeholders and economic importance of water, droughts and other threats to water users, and information on proposed water-related projects. We have been and will continue to combine data and information collection with the input from local stakeholders on their goals, issues, concerns, etc. for the economic analysis. We have also begun the economic analysis, focusing on developing a preliminary understanding of water supply and water use (consumptive and non-consumptive) by user group. We have documented the resources we've identified for use in the economic analysis in a data summary memo. We have also prepared a memo that provides a brief framework and preliminary list of ways water has the potential to produce economic value in the basin. In Phase Two we will

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extend the work begun in Phase One and complete the economic analysis. We will also produce a report that summarizes our data, analysis, and results.

## Phase Two Scope of Work

Our proposed scope of work for Phase Two of the economic analysis of water in the North Santiam basin includes the following major tasks.

### TASK 1: ADDITIONAL DATA COLLECTION AND SYNTHESIS

The goals for this task include following up on the information we collected in Phase One. We will continue to track down and review information relevant to the economic analysis through interviews with key informants that follow-up on leads identified in Phase One, exploring in more detail databases and data sets collected in Phase One, and conducting additional literature review to fill data gaps identified in Phase One.

This task involves continuing to collect and review information to help us tell the North Santiam basin's water story. The major categories of data and information include:

- Water supply, water rights, and water regulations (OWRD Water Rights Database and water rights data included in the Willamette 2100 Envision model)
- Water use by type of use (e.g., irrigated agriculture, municipal, habitat, and in-stream flow requirements) including surface and groundwater (OWRD Water Rights Database and water rights data included in the Willamette 2100 Envision model)
- Economic significance or importance of water use (Adapting economic information developed through the Willamette 2100 project, filling data gaps through information developed directly through key-informant interviews, etc.)
- Expected future conditions and trends that would potentially impact the watershed, including droughts and other threats to water supplies (Adapting information developed through the Willamette 2100 project, clarifying relevant demographic and development trends with key-informants, etc.)

One area of special note is the potential use of data generated through the Willamette 2100 project. The North Santiam basin was included in that project, and we are exploring the availability of useful information from that effort. We have already had several meetings with individuals involved in Willamette 2100 to get a sense of what data are available. As part of this follow-up phase we will collect any useful information that is readily available. We have also learned that it may be possible to use the underlying model from the Willamette 2100 project to generate additional information specific to the North Santiam basin. The model is complex, and we will investigate the cost-effectiveness of using the model in this analysis or as a potential resource in the future.

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## TASK 2: ANALYSIS

This task comprises the bulk of the economic analysis. It includes drawing upon the information collected throughout the project to describe the economic story of water in the North Santiam basin. In the analysis, we will utilize both quantitative and qualitative information, noting the existence of data gaps and identifying areas for potential future analysis. It will address these questions:

- What is the supply of water in the North Santiam basin?
- What are the uses and underlying demand for water from the North Santiam basin?
- How does water from the North Santiam yield economic value?
- What trends are affecting water in the basin now, and how might these trends affect the economic value of water in the future?

We will integrate the answers to these four questions to describe the economic importance of water in the North Santiam basin. Using the information about supply and demand in the first two questions, we will describe (and quantify in monetary terms where data are available) economic effects as water interacts with human systems from the basin's headwaters to discharge from the basin. Types of economically relevant effects the analysis will address include water's value as an input in producing goods and services that people care about, and the ways that consumption of water-dependent goods and services affect economic activity and economic development in the basin. The analysis will focus on the interactions occurring under conditions present today and in recent years (available data used in the analysis will cover varying time periods, so our description will reflect the most recent data available but won't precisely describe conditions at a specific point in time). Information about expected trends that may affect supply (e.g., climate conditions) and demand (e.g., population changes) will inform a discussion of how economic value may change in the future. Because this analysis is designed to use and synthesize existing sources of information, it will not involve any new economic modeling (e.g., IMPLAN analysis) or primary data collection (e.g., through surveys).

## TASK 3: REPORT PREPARATION

This task involves summarizing the economic analysis for the intended audience. The aim of the report will be to tell the economic story of water use in the North Santiam basin. We have provided a draft report outline that will serve as a guide. The final report will likely vary somewhat from the draft outline as we adapt the report to the final analysis.

We will provide a draft report for client review and comment. We propose one round of review, with the client collecting and consolidating all comments into a single file before forwarding them to us. Based on our review of the feedback and a discussion with the client to clarify revisions, we will revise the draft report as needed and prepare a final report.

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Based on our discussions with stakeholders we recommend that we prepare a standard report summarizing the analysis. Our standard report format is mainly text, generally monochromatic, with minimal graphical elements or design features. It focuses on using text descriptions to provide details and background information, with figures and tables summarizing data as needed. It would include one map of the study area, highlighting important features highlighted in the analysis. See the full Yakima report at <https://fortress.wa.gov/ecy/publications/documents/1712009.pdf> for an example of the format of a standard report.

Other formats for final deliverables that could be added upon request include a PowerPoint slide deck and presentation or a high visual content executive summary with an accompanying data appendix report (see the Executive Summary of the Yakima report at <https://fortress.wa.gov/ecy/publications/documents/1712010.pdf> for an example of the format of a document with high visual content and design). Budget requirements for these products could be estimated upon request.

## Timeline

The timeline to complete Tasks 1 through 3 is approximately 16 weeks, depending on data availability, the timing of interactions with stakeholders, and the turn-around time on providing comments on the draft report.

## Budget

The budget to complete Tasks 1 through 3 described above shall not exceed \$30,000. This includes up to \$250 in travel expenses, with the remainder in labor. Table 1 shows the budget by category.

**Table 1: Budget for Phase II**

Category	Staff Hours	Budget
Task 1: Additional Information Collection	45	\$5,100
Task 2: Analysis	136	\$17,210
Task 3: Prepare Report	54	\$7,440
Travel		\$250
Total	235	\$30,000